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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,736	07/19/2000	Reza Mirkhani	99RSS476NAD	2617

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EXAMINER
PARK, ILWOO

ART UNIT	PAPER NUMBER
2182	6

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/619,736	Applicant(s) MIRKHANI ET AL.	
	Examiner Ilwoo Park	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 14-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 14-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Applicant's amendment filed on 6/13/2003 in response to Examiner's Office Action has been reviewed. Claims 1 and 11 are amended and claims 12 and 13 are canceled. The following rejections now apply.

2. Claims 1-11 and 14-20 are presented for examination.

3. Sorber, Fluss, Smith, and Dolkas et al were cited as prior art in the last office action.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-3, 5, 10, 11, 15, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Sorber, US patent No. 6,018,515.

As to claim 1, Sorber teaches a link layer controller [fig. 3 and col. 4, lines 41-50] comprising:

a network layer interface [col. 5, lines 60-67] configured to exchange packets with a network layer system and transfer a status signal to the network layer system;

a physical layer interface [col. 6, lines 1-11] configured to exchange the packets with a physical layer system; and

a memory controller [figs. 3 and 5] configured to exchange the packets with the network layer interface exchange the packets with a memory [col. 6, lines 38-44], exchange the packets with the physical layer interface, and generate the status signal [col. 8, line 62-col. 9, line 10] to indicate available space in the memory and to indicate a memory over-run [col. 9, lines 15-21] or a memory under-run [col. 9, lines 24-28].

6. As to claim 2, Sorber teaches the memory controller includes a plurality of transmit buffers [fig. 5] and wherein the status signal indicates the available space in each of the transmit buffers [col. 8, lines 45-51].

7. As to claim 3, Sorber teaches the memory controller is configured to control a size of each of the transmit buffers in response to external instructions [col. 8, lines 45-51; col. 9, lines 15-21].

8. As to claims 5 and 15, Sorber teaches the network layer interface [MTP-L3 interface bus driver 12 in fig. 3] is configured to use a packet exchange bus to exchange

the packets with the network layer system and to transfer the status signal to the network layer system [col. 9, lines 4-10].

9. As to claims 10 and 20, Sorber teaches the network layer interface [MTP-L3 interface bus driver 12 in fig. 3] is configured to use a packet exchange bus to exchange stop transfer signals with the network layer system [col. 9, lines 4-10].

10. As to claim 11, Sorber teaches a method of operating a communications device [fig. 3; col. 4, lines 41-50; col. 5, line 60-col. 6, line 11], the method comprising:

transferring packets between a network layer system and a link layer system;

transferring packets between the link layer system and a physical layer system;

transferring packets between the physical layer system and a communication path;

generating a status signal [col. 8, line 62-col. 9, line 28] in the link layer system indicating available space in link layer memory and indicating a memory over-run [col. 9, lines 15-21] or a memory under-run [col. 9, lines 24-28];

transferring the status signal from the link layer system to the network layer system; and

processing the status signal in the network layer system to control the exchange of the packets between the network layer system and the link layer system.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorber as applied to claims 3 and 11 above, and further in view of Fluss, US patent No. 6,304,578.

As to claims 4 and 14, Fluss teaches a memory controller having a plurality of transmit buffers for exchanging packets with a network layer and exchanging packets with a physical layer; and Fluss further teaches each of the transmit buffers corresponds to a transmit channel [col. 4, lines 63-64] and the memory controller is configured to provide transmit priority to one of the transmit channels with transmit buffer occupancy exceeding a threshold [col. 7, lines 4-8].

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sorber and Fluss because they both teach a memory controller having a memory for exchanging packets with a network layer and exchanging packets with a physical layer and the Fluss' teaching of each of the transmit buffers corresponding to a transmit channel and the memory controller configured to provide transmit priority to one of the transmit channels with transmit buffer occupancy exceeding a threshold would increase flexibility of buffer management and flow of data transfer between the network layer and the physical layer [Sorber: col. 6, lines 34-37; col. 9, lines 15-21].

13. Claims 6-9 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorber as applied to claims 5 and 15 above, and further in view of Dolkas et al., US patent No. 5,007,051.

As to claims 6 and 16, Dolkas et al teach a packet exchange bus to exchange a status including parity information with a network layer system [register 103 in figs. 3 and 4; col. 8, lines 25-38; col. 10, lines 13-15; col. 12, lines 66-68].

As to claims 7 and 17, Dolkas et al teach a packet exchange bus to exchange a status including data validity information [col. 10, line 67-col. 11, line 2].

Therefore, it would have been obvious to one of ordinary skill in the art to include the teachings of Dolkas et al because they both teach a packet exchange bus for exchanging packets and a status and the Dolkas et al's teaching of the packet exchange bus including parity information and data validity information would increase flexibility reliability of packet transfer of Sorber.

As to claims 8 and 18, Dolkas et al teach a packet exchange bus to exchange a status including start of packet information and end of packet information [col. 1, lines 49-52].

As to claims 9 and 19, Dolkas et al teach a packet exchange bus to exchange a status including a synchronization signal [col. 1, lines 49-52].

Therefore, it would have been obvious to one of ordinary skill in the art to include the teachings of Dolkas et al because they both teach a packet exchange bus for exchanging packets and a status and the Dolkas et al's teaching of the packet exchange bus including start of packet information, end of packet information parity information, and/or a synchronization signal would increase flexibility in processing a packet.

Response to Arguments

14. Applicant's arguments filed 6/13/2003 have been fully considered but they are not persuasive.

In the remarks, applicants argued in substance that Sorber fails to disclose or suggest a status signal indicating a memory over-run or a memory under-run.

Sorber teaches a status signal indicating a memory over-run [col. 9, lines 15-21] or a memory under-run [col. 9, lines 24-28].

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (703) 308-7811. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (703) 308-3301. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA, 4th Floor (Receptionist)

Ilwoo Park

June 18, 2003